

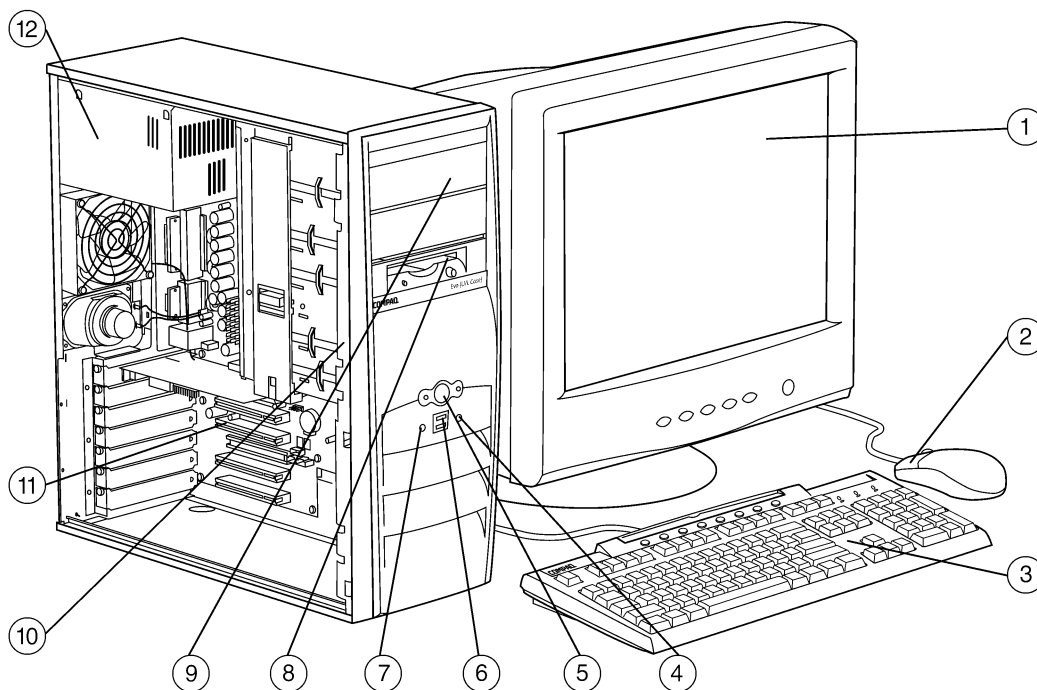
Overview

What's New

- Intel®Pentium® 4 processors
- Intel® 845 chipset
- New Evo industrial design with carbon and silver color
- Front audio and USB ports

At A Glance

- Intel®Pentium® 4 processors with 400-MHz Front Side Bus
- Available in Convertible Minitower form factor
- Pre-loaded Microsoft Office on D300s
- Energy Star compliant with energy-saving features
- Windows XP Ready
- Protected by Compaq Services, including a 1-1-1 limited warranty. Certain restrictions and exclusions apply.



- | | |
|----------------------------------|--|
| 1. CRT Monitor (sold separately) | 7. Headphone Connector |
| 2. 2-Button Scroll Mouse | 8. 1.44-MB Diskette Drive |
| 3. Easy Access Keyboard | 9. 2 External Expansion Bays |
| 4. Microphone Connector | 10. SMART III Ultra ATA/100 Hard Drive |
| 5. Dual-State Power Button | 11. Expansion Slots |
| 6. USB Connector | 12. 250-Watt Power Supply |

Standard Features – Select Models

Compaq Evo Desktop D300s Series with 845 chipset

Pre-Configured Models

Model Key

Example:

D3Ms/P1.5/20j/2/128c6E

D3Ms =

P1.5 =

20 =

j =

8 =

2 =

k =

128 =

c =

6 =

g =

E =

Evo D300s Convertible Minitower

Pentium 4 1.5-GHz processor

Hard Drive, 5400rpm

845 chipset

Microsoft Windows 98 SE

Microsoft Windows 2000 SP2

Microsoft Windows XP Professional

Memory, PC133 SDRAM

48X CD-ROM

NVIDIA Vanta 16-MB 4X AGP graphics

NVIDIA MX200 16-MB 4X AGP graphics

Microsoft Office XP Small Business

470023-466

D3Ms/P1.7/40j/8/256c6E

470023-467

D3Ms/P1.7/40j/2/256c6E

470031-669

D3Ms/P1.8/20j/8/128c6E

470023-794

D3Ms/P1.8/40j/k/256cgE

470031-671

D3Ms/P2.0/40j/k/256c6E

Standard Features – Custom Components

Compaq Evo Desktop D300s Series with 845 chipset

Processor and Speed <i>One of the following</i>	Intel Pentium 4 Processors 1.7-GHz 1.8-GHz 2.0-GHz* 2.2-GHz*	Standard L2 Cache Front Side Bus Maximum Memory	256-KB Integrated ECC 400-MHz 3-GB
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Note: Intel Pentium 4 processors with speeds of 2.0-GHz or above have 512-KB L2 cache.

Note: Compaq Evo D300v Series Microtower with 845 chipset contains three DIMM slots, but can only be upgraded to a maximum of 3-GB when 1-GB PC133 SDRAM are available.

Hard Drives <i>One of the following</i>	20-GB 7200 rpm Quiet Seek and Idle SMART III Ultra ATA/100 20-GB 5400 rpm Quiet Seek and Idle SMART III Ultra ATA/100 40-GB 7200 rpm Quiet Seek and Idle SMART III Ultra ATA/100 40-GB 5400 rpm Quiet Seek and Idle SMART III Ultra ATA/100 60-GB 7200 rpm Quiet Seek and Idle SMART III Ultra ATA/100
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Standard Memory <i>One of the following</i>	1.0-GB SDRAM (PC133) (2 x 512MB) 512-MB SDRAM (PC133) (1 x 512MB) 256-MB SDRAM (PC133) (1 x 256MB) 128-MB SDRAM (PC133) (1 x 128MB)
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Removable Storage	1.44-MB Diskette Drive Zip 250 Drive including one disk
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Optical Storage	48X CD-ROM Drive 16X/40X DVD-ROM Drive (with DVD-RAM disc read capability) 16X/10X/40X CD-RW Drive 8X/4X/32X DVD/CD-RW Combo Drive
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Keyboard/Mouse	Easy Access Keyboard 2-Button Scroll Mouse
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Audio	Integrated AC'97 Audio with Internal Speaker
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NIC	Integrated Intel PRO/100 VM Network Connection
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Modem	Lucent V90 56K PCI Modem (V.92 upgradable)
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Graphics	NVIDIA Vanta 16-MB 4X AGP NVIDIA GeForce2 MX200 16-MB 4X AGP NVIDIA GeForce2 MX400 32-MB 4X AGP Matrox Millennium G450 Dual-Head 32-MB 4X AGP
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Operating System <i>One of the following</i>	Microsoft Windows XP Professional Microsoft Windows XP Home Microsoft Windows 2000 Professional SP2 Microsoft Windows 98 SE
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Productivity Software on D300s <i>One of the following</i>	Microsoft Office XP Small Business with Publisher 2002 Microsoft Office XP Professional with Publisher 2002
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Antivirus Software	Norton Antivirus 2002
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Standard Features – Base Unit Details

Compaq Evo Desktop D300s Series with 845 chipset

Intelligent Manageability	Yes	
Expansion Capability	Memory Expansion Slots	3 DIMMs
Slots	PCI AGP	3 (3 on PCA) <i>(slot occupied by video card)</i> 1 (1.5V AGP 4X)
Bays	Internal External	(2) HDD (2) 5.25" 1/2 ht (1) Floppy
Dimensions (H x W x D)	Inches Centimeters	17.65 x 6.6 x 16.8 inches 44.8 x 16.8 x 42.7 centimeters
Weight	System Weight Weight Supported	26.0 lbs / 11.8 kg 100 lb / 45.5 kg
System Memory	Type/Speed Current Maximum Memory Maximum Memory Memory Parity ECC Memory Serial Presence Detect Support	SDRAM DIMM - PC133 Only 1.5-GB 3-GB (when 1-GB PC133 SDRAM are available) Not Supported Supported (Intel 845 chipset does not support mixing of Non-ECC and ECC PC133 memory) Mandatory as part of PC133 Spec
Supported Features	Processor CPU Bus Speed Supported Memory Type Supported Memory Speed Supported SPD Support Hard Drive Interfaces Supported Hard Drive Controller (PCI) Interfaces Supported	Intel Socket 478 400-MHz SDRAM PC133 Only Yes SMART Ultra ATA/100/66/33 SMART Ultra ATA/100/66/33
Intel® Pentium® 4	Coprocessor CPU Socket Type/Number CPU Package Front Side Bus Speed Standard L2 Cache L2 Cache Architecture / Speed	Yes Surface Mount ZIF Socket - 478 Pins mPGA478B, FC-PGA2 400-MHz 256K Advanced Transfer Cache on Die with 8-way associativity and Error Correcting Code (ECC) / Full Speed of Processor

Standard Features – Base Unit Details

Compaq Evo Desktop D300s Series with 845 chipset

System Board	Architecture	P4 / PCI / AGP 4X		
	Chipset	Intel 845 Chipset		
	I/O Controller	Super I/O 3		
	System Board Form Factor	Standard uATX		
	Processor Socket - 478 Pin ZIF	Yes		
	DIMM Connectors	Yes (3)		
	AGP Connector	Yes (1)		
	AGP Integrated	No		
	PCI Connectors	3 standard		
	Flash ROM	Yes		
	Audio (ADI 1885 - AC97)	Yes		
	CD ROM IN (Audio)	Yes		
	Clear CMOS Button	Yes		
	CPU Fan Header	Yes		
	Chassis Fan Header	Yes		
	Chassis Speaker Header	Yes		
	CMOS Battery Holder - Lithium	Yes		
	NIC	Yes		
	Wake-On-Lan®	Yes		
	Alert-On-LAN®	Yes		
	Power Supply Header	Yes		
	Power Switch, Power LED & HD LED Header	Yes		
	Password Clear Header	Yes		
	Reset Header (Not Installed)	Yes		
	SCSI LED Header	Yes		
	Speaker Header	Yes		
	Boards that connect to System Board	Convertible Minitower	Solenoid Lock PCB (Option) PCI Extender Board - 2 additional PCI Slots Front I/O Board (Option)	

Standard Features – Base Unit Details

Compaq Evo Desktop D300s Series with 845 chipset

Serviceability Features of System Board	<ul style="list-style-type: none"> Dual Color Power and HD LED - To Indicate Normal Operations and Fault Conditions Blinking Diagnostic Keyboard LED Codes Diagnostic LED Label under Hood Cover User Diagnostic Software Support Over-Temp Warning on Screen (Need Intelligent Manageability to work) Compaq Software Restore CD Flash ROM 3.3V Aux Power LED on System PCA Dual Function 5V Aux Power LED (ON) /PS_ON LED (OFF) on System PCA Processor Hot LED on System PCA Diagnostic Power Switch LED Clear Password Jumper Clear CMOS Button
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Convertible Minitower Chassis	<ul style="list-style-type: none"> Color System Board Form Factors Supported Cooling Solutions Supported (3 Fans) Slots Supported Front I/O Rear I/O Internal Speaker Custom Power Supply Security Locks Supported Power Switch / LED Cable 	<ul style="list-style-type: none"> Silver/Carbon Standard uATX & Standard ATX Variable Speed Power Supply Fan Variable Speed Processor Fan Heatsink Variable Speed Chassis Fan 4 Full Length, Full Height Slots (1 AGP and 3 PCI) Front Headphone, Mic, and 2 USB (Option) Standard ATX I/O Panel Yes 250-Watt Enhanced ATX PS Kensington Cable Lock Security Module (Solenoid Hood Lock and Hood Sensor) Compaq Lock Bracket – 173234 (chassis securement only, hood lock required to secure hood) Yes
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Standard Features – Base Unit Details

Compaq Evo Desktop D300s Series with 845 chipset

Serviceability Features of Chassis	Dual Color Power and HD LED to Indicate Normal Operations and Fault Conditions	Yes
	Diagnostic LED Label under Hood Cover	Yes
	Security Module (Smart Cover Lock and Hood Sensor)	Optional
	Front power switch	Yes
	Green Pull Tabs, and Quick Release Latches for easy Identification	Yes
	System memory can be upgraded without removing the system board or any internal components	Yes
	Tool-less Hood Removal	Yes (with captive thumbscrew)
	Tool-less Hard Drive, CD & Floppy Removal	Yes
	Tool-less System Board Removal	No
	Industry Standard CD Bay	Yes
	Towerable	Yes (Can also Rotate Drives)
	Universal Tower Stand	No (Not needed)
	Green Color Coded Latches & Cable Pull Tabs for Easy Identification	Yes

Interfaces	I/O Chip	Super IO 3
	Serial Port / UART Type	Yes (2) / SN75185
	Parallel Port	Yes
	USB	2 USB 1.1 (Optional 2 Front USB)
	Infrared Port	No
	Network	RJ-45 (with integrated LEDs)
	Keyboard	Yes (PS/2)
	Mouse	Yes (PS/2)
	Video	Yes (AGP 4X 1.5V Bus)
	Audio	Yes

Standard Features – Base Unit Details

Compaq Evo Desktop D300s Series with 845 chipset

Power Supply	Full Ranging Input (No Line Select Switch)	Yes
	Active Power Factor Correction (APFC) (Input Current is nearly ½ a non-APFC PS)	Yes
	Operating Voltage Range	90 to 264VAC
	Rated Voltage Range	100 to 240VAC
	Rated Line Frequency	50-60 Hz
	Rated Input Current	3.6A @ 100VAC
	Maximum Rated Power	250W
	Heat Dissipation	Max: 1,313 BTU/hr
		Nominal: 656 BTU/hr
Max: 331 kg-cal/hr Nominal: 165 kg-cal/hr		

Power Conservation 'Energy Saver'	Energy Star Compliant	Yes
	Blue Angel Compliant (<5w in S5-Power Off)	Yes
	Power Consumption in ES Mode -Suspend to RAM (S3) (Instantly Available PC)	TBD
	APM Support	Yes
	Screen Blanking	Yes
	Hard Disk 'Idle' Mode	Yes
	System Idle Mode	Yes
	Processor/Cache Memory Power-Down (S3)	Yes
	CD-Rom Spins Down when not in use	Yes

Standard Features – Base Unit Details

Compaq Evo Desktop D300s Series with 845 chipset

ROM Features	<ul style="list-style-type: none"> Instantly Available PC (Suspend to RAM - S3) ROM Based F10 Setup Remote System Installation via F12 (PXE) Failsafe Boot Block ROM Emergency ROM Flash Recovery with Video CMOS Archive and CMOS Restore Save and Restore CMOS Setup via Diskette Auto Setup when New Hardware Installed Serial, Parallel, USB Enable/Disable Port Control Removable Media Write / Boot Control Remote Boot from Server Network Server Mode Power-On Password Setup Password Memory Change Alert (Need IM to work) Thermal Alert (Need IM to work) Cover Removal Alert (Need IM to work) Master Boot Record Security Remote ROM Flash Remote Wakeup Power Management ACPI Ready DMI BIOS (Desktop Management Interface)
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System Environmental Specs	<ul style="list-style-type: none"> Operating Temperature 50° to 95°F/10° to 35° C (Derating of 1.0°C per 300m (1000ft) to 3000m (10,000ft), no direct sustained sunlight) Non-operating Temperature -22° to 140° F/-30° to 60° C (Maximum rate of change is 20°C/Hr.) Relative Humidity (non-condensing) Operating 10% to 90% (28°C maximum wet bulb temperature) Relative Humidity (non-condensing) Non-operating 5% to 95% (38.7°C maximum wet bulb temperature) Max Altitude (unpressurized) Operating 10,000 ft 3,048 m (Maximum allowable altitude change rate is 1500 ft/min) Max Altitude (unpressurized) Non-operating 30,000 ft 9,144 m (Maximum allowable altitude change rate is 1500 ft/min) Acoustics ENERGY SAVE MODE: LWAd = TBD Bels, Desktop Average LpAm = TBD dBA FIXED DISK - SCSI (Random write): LWAd = TBD Bels, Desktop Average LpAm = TBD dBA Shock (Operating) 5 G Shock (Non-Operating) 20 G 10 G (positive and negative directions front to back on Small Form Factor) Vibration (Operating) Operating: Random vibration at 0.000215 G²/Hz, 10Hz to 300Hz, (0.25G's nominal) Vibration (Non-Operating) Random vibration at 0.0005 G²/Hz, 10Hz to 500Hz, (0.5G's nominal).
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Standard Features – Base Unit Details

Compaq Evo Desktop D300s Series with 845 chipset

Software

Preinstalled Software	Microsoft Windows 98 SE	Yes
	Microsoft Windows 2000 SP2	Yes
	Microsoft Windows XP Pro	Yes
	Microsoft Windows XP Home	Yes
	Microsoft Windows XP Small Business	Yes
	Microsoft Windows XP Professional	Yes
	Norton Antivirus	Yes
	Computer Setup Utility via F10 (ROM Based)	Yes
	Diagnostics for Windows	Yes
Microsoft Internet Explorer	Yes	

Intelligent Manageability Agent	Yes
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Plug and Play Ready	Yes	
	Windows 98	Yes
	Windows 2000	Yes
	Windows XP Pro	Yes
	Windows XP Home	Yes

Boot Support	Local Diskette Boot	Yes
	Local CD Boot	Yes
	Remote Boot	Yes
	Network Boot	Yes

Intelligent Manageability	Information downloadable from: http://www.compaq.com/im
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Initial Configuration and Deployment	<ul style="list-style-type: none"> Intelligent Manageability Home Page Altiris eXpress PC Transplant / PC Transplant PRO System Software Management Novel ZenWorks 2.0 Insight Manager Support Software CD Compaq Software Restore CD
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Asset Control	<ul style="list-style-type: none"> Asset Tag DIMM Serial Presence Detect Hard drive serial number, model, & manufacturer Monitor serial number, model & manufacturer System serial number, model, & manufacturer ROM revision levels System board revision level Compaq Fingerprint Identification Technology (Optional) DMI BIOS Memory Change Alert (Intelligent Manageability needed to work) Ownership Tag Smart Cover Lock (Optional) Kensington Lock Support Smart Cover Sensor (Optional)
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Standard Features – Base Unit Details

Compaq Evo Desktop D300s Series with 845 chipset

Standard Security Features

- Asset Tracking and Security Home Page <http://www.compaq.com/im/ats.html>
- Optional Smart Cover Lock
- Mechanical Security Provision
- Cable Lock Provision
- Power-On Password
- Serial, Parallel, USB Enable/Disable
- Removable Media Write / Boot Control
- Power-On Password
- Setup Password

Software Updating and Management

- Software Updating and Management Home Page <http://www.compaq.com/im/sum.html>
- Remote ROM Flash
- ROM Based Setup (F10) and Start-up Diagnostics
- Support Software CD & WWW Site

Fault Notification and Recovery

- Fault Management Home Page <http://www.compaq.com/im/fnr.html>
- DMI BIOS
- SMART Hard Drives, Fault Notification, & Prefailure Warranty
- Proactive Backup
- ATA RAID Controller Option
- ECC Memory, Fault Notification, and Pre-failure Warning
- Processor Fault Notification and Prefailure Warranty (Not supported by P4 processor)
- Surge Tolerant Full Ranging Power Supply
- Thermal Sensor
- Ultra ATA Integrity Monitoring (CRC Checking)

Other Features

- ACPI-Ready Hardware
- Compaq Insight Manager LC and XE Agents
- Alliris agent
- Compaq Management Solutions Partners Program
- Dual-State Power Button
- Compaq Management Solutions Partners Program
- Wired for Management Support

Service and Support

On-site Warranty ^{Note 1}: This one-year, limited warranty covers all parts for one year and provides free, next-business-day ^{Note 2} service (parts and labor) for the first year and includes free telephone support ^{Note 3} 24 hours a day, 7 days a week. The customer may extend or upgrade the warranty to provide labor and/or on-site service for the second and third years. Global coverage ^{Note 2} ensures that any product purchased in one country and transferred to another non-restricted country will remain fully covered under the original warranty.

^{Note 1}: Terms and conditions may vary by country. Certain restrictions and exclusions apply.

^{Note 2}: On-site service may be provided pursuant to a service contract between Compaq and an authorized Compaq third-party provider, and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.

^{Note 3}: Technical telephone support applies only to Compaq-configured Compaq and third-party Compaq-qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.

After-Market Options

Graphics	NVIDIA GeForce2 MX200 16-MB AGP	251954-B21
	NVIDIA GeForce2 MX400 32-MB AGP	227003-B21
	Matrox G200 MMS PCI Quad with DVI Cables	179597-B21
	Matrox G200 MMS PCI Quad Analog Cables	159513-B21
	DVI Cables for the G200 MMS PCI Quad	170840-B21
Hard Drives	<i>SMART III Ultra ATA/100 Hard Drives with Drive Protection System (DPS)</i>	
	120-GB 7200 rpm SMART III Ultra ATA Quiet Seek and Idle Hard Drive with DPS (worldwide)	250021-B21
	80-GB 7200 rpm SMART III Ultra ATA Quiet Seek and Idle Hard Drive with DPS (worldwide)	250020-B21
	40-GB 7200 rpm SMART III Ultra ATA Quiet Seek and Idle Hard Drive with DPS (worldwide)	201066-B21
	20-GB 7200 rpm SMART III Ultra ATA Quiet Seek and Idle Hard Drive with DPS (worldwide)	251974-B21
	<i>SCSI Hard Drives</i>	
	72-GB 10K rpm 1.0" Ultra3 (Ultra 160) SCSI Hard Drive	250023-B21
	36-GB 15K rpm Ultra3 (Ultra 160) SCSI Hard Drive	250022-B21
	18.2-GB 10K rpm Ultra3 (Ultra 160) SCSI Hard Drive	159764-B21
	18.2-GB 15K rpm Ultra3 (Ultra 160) SCSI Hard Drive	191188-B21
Adaptec 29160N Ultra160 (Ultra3) SCSI Controller	157810-B21	
Input/Output Devices	<i>Keyboards</i>	
	Compaq Easy Access Keyboard (carbon)	202109-008
	<i>Mice</i>	
	Compaq 2-Button Scroll Mouse (PS/2)	170299-B22
	Compaq 2 Button Scroll Mouse (USB)	195255-B25
Memory (DIMMs)	<i>133-MHz SDRAM DIMMs</i>	
	512-MB Memory Kit (1 x 512-MB SDRAM DIMM, 133 MHz)	259039-B21
	256-MB Memory Kit (1 x 256-MB SDRAM DIMM, 133 MHz)	174225-B21
	128-MB Memory Kit (1 x 128-MB SDRAM DIMM, 133 MHz)	174224-B21
Monitors	<i>TFTs</i>	
	Compaq TFT8030 Monitor (18-inch, Carbon/Silver)	234362-001
	Compaq TFT8030 Monitor (18-inch, Baseless)	250199-001
	Compaq TFT5030 Monitor (15-inch, Carbon/Silver)	228134-001
	Compaq TFT5030 Monitor (15-inch, Baseless)	250198-001
	Compaq TFT5015 Monitor (15-inch, Opal)	234043-001
	Compaq TFT5015 Monitor (15-inch, Carbon/Silver)	234044-001

After-Market Options

Monitors <i>(continued)</i>	CRTs	
	Professional Series	
	Compaq P1220 CRT Monitor (21-inch, Carbon/Silver)	244374-xxx
	Compaq P1210 CRT Monitor (21-inch, Opal)	210290-001
	Compaq P1210 CRT Monitor (21-inch, Carbon/Silver)	230538-001
	Compaq P920 CRT Monitor (19-inch, Carbon/Silver)	244375-xxx
	Compaq P910 CRT Monitor (19-inch, Opal)	210254-001
	Compaq P910 CRT Monitor (19-inch, Carbon/Silver)	230535-001
	Compaq P710 CRT Monitor (17-inch, Opal)	210189-001
	Compaq P720 CRT Monitor (17-inch, Carbon/Silver)	244373-xxx
	Value Series	
	Compaq V720 CRT Monitor (17-inch, Opal)	232943-xxx
	Compaq V720 CRT Monitor (17-inch, Carbon/Silver)	232944-xxx
	Compaq V710 CRT Monitor (17-inch, Opal)	187895-001
	Compaq V510 CRT Monitor (15-inch, Opal)	228114-xxx
	Compaq V510 CRT Monitor (15-inch, Carbon/Silver)	228113-xxx
	Standard Series	
	Compaq S910 CRT Monitor (19-inch, Opal)	138485-001
	Compaq S920 CRT Monitor (19-inch, Opal)	240325-xxx
	Compaq S920 CRT Monitor (19-inch, Carbon/Silver)	240326-xxx
	Compaq S710 CRT Monitor (17-inch, Opal)	152991-001
	Compaq S710 CRT Monitor (19-inch, Carbon)	154499-002
	Compaq M710 CRT Monitor (19-inch, Opal)	154499-005
	Compaq S720 CRT Monitor (17-inch, Opal)	239286-xxx
	Compaq S720 CRT Monitor (17-inch, Carbon/Silver)	239287-xxx
	Compaq M720 CRT Monitor (17-inch, Carbon/Silver)	238994-xxx
	Compaq M720 CRT Monitor (17-inch, Opal)	240759-xxx
	Compaq S510 CRT Monitor (15-inch, Carbon)	168636-002
	Compaq M510 CRT Monitor (15-inch, Opal)	168636-005
Multimedia	Labtec Spin-22 Speakers (carbon)	246637-001
Optical Drives	DVD-ROM Drives	
	16X/40X DVD-ROM Drive (carbon)	237495-B22
	DVD-RAM Drives	
	4.7-GB DVD-RAM Drive (carbon)	294415-B22
	CD-ROM Drives	
	48X Max CD-ROM Drive (carbon)	187217-B21
	DVD-RW Drives	
	4.7-GB DVD-RW Drive (carbon)	246625-B22
	4.7-GB DVD-R Media (5-pack)	239405-001
	4.7-GB DVD-RW Media	249142-001
	CD-RW Drives	
	16X/10X/40X CD-RW Drive	240598-B22
	Combo Drives	
	8X Combo DVD-ROM and CD-RW Drive (carbon)	244885-B22

After-Market Options

Removable Storage

Floppy Drives

ZIP 100 High-Capacity Floppy Drive (carbon)	294402-B22
ZIP 100 Media 3-Pack	127591-001
ZIP 250 High-Capacity Floppy Drive (carbon)	294416-B22
ZIP 250 Media 3-Pack	217896-B21

Tape Drives

TR5 10/20-GB Tape Drive (carbon)	294243-B21
TR5 10/20-GB Media 3-Pack	125782-B21

Security

USB Biometric Identification Device	240238-B21
Basic Smartcard Keyboard	115506-008

Memory

845 chipset (128-MB)

133-MHz SDRAM DIMM MEMORY

STANDARD MEMORY

128-MB DIMM Standard

MAXIMUM MEMORY

Intel 845 Chipset supports up to 3-GB of PC133 SDRAM. Platform can utilize 3-GB of memory when 1-GB DIMMs are available with the installation of optional SDRAM Memory Kits.

Memory		Slot		
		1	2	3
Standard	128-MB	128-MB	Empty	Empty
Current Maximum Memory	1.5-GB	512-MB	512-MB	512-MB
Maximum Memory when 1-GB	3-GB	1-GB	1-GB	1-GB

Note: All Compaq Evo Desktop D300s contain three DIMM slots, but can only be upgraded to a maximum of 3-GB when 1-GB DIMMs are available.

Note: 1-GB PC133 SDRAM not currently offered as after-market options.

Note: It is not necessary to add memory in pairs or kits. Memory upgrades are accomplished by adding single or multiple DIMMs of the same or varied sizes. This chart does not represent all possible memory configurations.

845 chipset (256-MB)

133-MHz SDRAM DIMM MEMORY

STANDARD MEMORY

256-MB DIMM Standard

MAXIMUM MEMORY

Intel 845 Chipset supports up to 3-GB of PC133 SDRAM. Platform can utilize 3-GB of memory when 1-GB DIMMs are available with the installation of optional SDRAM Memory Kits.

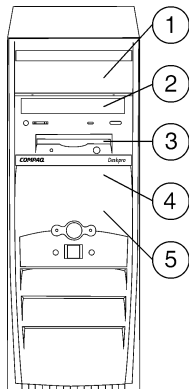
Memory		Slot		
		1	2	3
Standard	256-MB	256-MB	Empty	Empty
Current Maximum Memory	1.5-GB	512-MB	512-MB	512-MB
Maximum Memory when 1-GB	3-GB	1-GB	1-GB	1-GB

Note: All Compaq Evo Desktop D300s contain three DIMM slots, but can only be upgraded to a maximum of 3-GB when 1-GB DIMMs are available.

Note: 1-GB PC133 SDRAM not currently offered as after-market options.

Note: It is not necessary to add memory in pairs or kits. Memory upgrades are accomplished by adding single or multiple DIMMs of the same or varied sizes. This chart does not represent all possible memory configurations.

Storage



Convertible Minitower Configuration

EVO DESKTOP D300S DRIVE SUPPORT

	Quantity Supported	Position Supported	Controller
Diskette Drives	1	3	Floppy
Tape Drives	2	1,2	IDE
CD-ROM Drives	2	1,2	IDE
DVD-ROM Drives	2	1,2	IDE
CD-RW Drives	2	1,2	IDE
SMART III Ultra ATA Hard Drives	Up to 2	4,5	Ultra ATA
SCSI Hard Drives	Up to 2	4,5	SCSI

Technical Specifications – Audio

Integrated AC97 Audio with internal speaker	Card Type	Integrated
	Plug and Play	Yes
	Stereo Codec	Yes
	OPL3 FM Synthesis	Yes
	Sound Blaster Compatibility	Yes
	Ports	Microphone-in (10-Kohm Minimum) Line-in (10-Kohm Minimum) Headphone/Line-out (16-ohm Minimum)
	Sampling	7 kHz to 48 kHz
	Compression	ADPCM, ESPCM
	OS support	Windows 98 S.E. Windows 2000
	Wavetable Syntheses (software)	Yes

Technical Specifications – Communications

Integrated Intel PRO/100 VM Network Connection with WOL	Manufacturer	Intel®		
	Interface	Intel SingleDriver™ technology (10/100-Mbps support)		
	Connector	RJ-45		
	Expansion bus architecture	PCI 2.2		
	Configuration	Network transfer rate	10BASE-T (Half-Duplex) 10 Mbps 10BASE-T (Full-Duplex) 20 Mbps 100BASE-TX (Half-Duplex) 100 Mbps 100BASE-TX (Full-Duplex) 200 Mbps	
		Data interface	PCI, 32-bit bus mastering	
		I/O address	Integrated connectivity with Intel I/O Controller Hub (ICH2)-based platforms	
	OS driver support	Microsoft Windows NT 3.51 and 4.0, Microsoft Windows 95 and 98, Microsoft Windows 2000, Beta Novell® NetWare® 3.11, 3.12, and 4.1x, 5 Server Sun Solaris™, SCO UnixWare OpenDesktop and OpenServer		
	Software support	Instrumentation support for CIM/WBEM SNMP, DMI, PXE 2.0, Intel PROSet utility for installation and configuration, Alert on LAN Software Developer Kit and same code		
	Remote wakeup	Alert On LAN (tx alerting)—PME # AND WAKE signals; no cable required on 810 or 820 chipset platforms		
Boot PROM support	Yes, Intel PRO/100 Boot Agent (PXE 2.0, RPL)			
Special features	Digital adaptive equalization control, link status interrupt capability, boundary scan support, 3-port LED support (speed, link, activity), 10BASE-T auto polarity correction, diagnostic loopback mode, 1:1 transmit transformer ratio support, automatic detection of unplugged mode, remote monitoring (alerting)			
Proactive alert technology	Alert on LAN (transmit functionality only)—requires Management Console software such as HP OpenView and requires alert utilities for the management console, proxy client software, client configuration software			
F12 BIOS support	Yes			
Environmental requirements	Operating temperature	32° to 131° F (0° to 55° C)		
	Operating humidity (non-condensing)	85% at 131° F (55° C)		
	Altitude	10,000 feet (3,048 meters)		
	Non-operating temperature	-40° to 158° F (-40° to +70° C)		
	Altitude	5,000 feet (15,240 meters)		
Power	300 mW typical in active transmit mode; reduced power in unplugged mode (<50 mW); 3.3 V device			
Power management	ACPI 1.0			
Flash package	48-pin Shrink Small Outline Package (SSOP)			
Network management	PCI 2.2			
LED indicators	Three-port support (speed, link, and activity)			
Standards compliance	IEEE VLAN support (802.1A), IEEE 802.2, IEEE 802.3 and IEEE 802.3u, (100-Mbps ethernet), IEEE Intel Priority Packet (801.1p), SCO UnixWare OpenDesktop and OpenServer, PC'99			

Technical Specifications – Communications

Lucent V.90 56K PCI Win Modem	Data Transmission	V.90/K56flex technology speeds: 56,000 Kb/s maximum downstream data; controllerless
	Data Speeds	(upload only): 33,600; 31,200; 28,800; 26,400; 21,600; 19,200; 16,800; 14,400; 12,000; 9600; 7200; 4800; 2400; 1200; and 300 b/s
	Data Standards	ITU V.90, ITU-T, V.34, V.32 (bis), V.22bis, V.22, V.21, V.23, and Bell 212A, and Bell 103.
	Fax speeds	14400; 12000; 9600; 7200; 4800; 2400; 1200; 300 b/s
	Fax mode capabilities	Group 3 FAX: V.17, V.29, V.27ter, and V21 Channel 2., Class 1 interface, TIA/EIA-578
	Error Correction and Data Compression	ITU-T recommended V.42 error correction, V.42 error correction (LAPM and MNP), V.42bis and MNP Class 5 data compression, ITU-T V.42bis data compression
	Power Management	APM and ACPI states D0, D1, D2, and D3, Meets PCI 2.2 requirements and PC 99 requirements
	Upgradability	Software driver upgradeable for future enhancements
	Video	ITU-T V.80 video ready interface
	Other	TIA/EIA 602 standard AT command set Built-in DTE interface with speeds up to 115.2 Kb/s, parallel 16550a UART-compatible interface Optional Ring wake signal
	Operating temperature	32° to 104° F/0° to 40° C
	Operating humidity	20% to 80%, non-condensing
	Operating System Driver Support	Microsoft Windows 98, 98SE, NT4.0, Windows 2000

Technical Specifications – Graphics

NVIDIA Vanta16-MB AGP Graphics Controller	Form factor	Half-size ATX
	Bus type	AGP 4X
	Memory support	16-MB SDRAM (64-bit frame buffer interface)
	Memory clock	125 MHz
	RAMDAC	250 MHz
	Internal clock	100 MHz
	Data path	64-bit
	Process	0.22 μ
	Pipelines	2 (bilinear)
	Fill rate	200 M pixels per second
	Triangle rate	8 M triangles per second
	Video overlay filter	2 x 2
	MPEG support (software)	CSC IDCT
	Color space conversion	Yes
	Scaling	Yes
	Quick draw support	Yes
	DCI and Microsoft DirectX video playback	Yes
	Microsoft DirectX support	Yes
	3-D support	Yes
	Engine acceleration	Basic video color conversion and scaling 100% hardware triangle setup engine
	Dual monitor support	With additional PCI controller only
OS support	Microsoft Windows 98, Microsoft Windows 2000, Microsoft Windows NT 4.0, Microsoft Windows Me	
Other	Optimized for Direct3D acceleration with support for Microsoft DirectX 5.0 and 6.0 128-bit Twin-Texel (TNT) architecture Two texture-mapped, lit pixels per clock Single pass multi-texture rendering 32-bit rendering with destination alpha 24-bit Z-buffer, 8-bit stencil buffer Anisotropic filtering (superior to trilinear MIP-mapping) High-performance, 128-bit 2-D/GUI/DirectDraw acceleration Transparent BLT, stretch BLT, points, lines, polylines, polygons, fills, patterns, arbitrary clipping and fast text rendering; pipeline optimized for multiple color depths including 8, 16, and 24 bits per pixel Video acceleration for DirectShow, MPEG-1, MPEG-2 and Intel Indeo® Fast 32-bit VGA/SVGA Triple 8-bit, 250-MHz palette DAC	

Resolutions Supported	Colors	Real-Time 3-D Gouraud Shading	Refresh Rates
1920 x 1200	256, 65K, 16.7M	256, 65K	60 to 75 Hz depending on color depth
1920 x 1080	256, 65K, 16.7M	256	60 to 85 Hz depending on color depth
1600 x 1200	256, 65K, 16.7M	256	60 to 85 Hz depending on OS and color depth
1280 x 1024	256, 65K, 16.7M	256, 65K	60 to 100 Hz
1152 x 864	256, 65K, 16.7M	256, 65K	60 to 85 Hz depending on color depth
1024 x 768	256, 65K, 16.7M	256, 65K, 16.7M	60 to 85 Hz
800 x 600	256, 65K, 16.7M	256, 65K, 16.7M	60 to 85 Hz
640 x 480	256, 65K, 16.7M	256, 65K, 16.7M	60 to 85 Hz

Technical Specifications – Graphics

NVIDIA GeForce2 MX 16- and 32-MB AGP Graphics Controllers	Vertical frequency	60-85 Hz
	Graphics controller	NVIDIA GeForce2 MX 200 and 400
	Bus type	AGP 4X
	RAMDAC	Integrated 350 MHz RAMDAC
	Memory type	SDRAM
	Memory amount	16, 32 or 64-MB unified frame buffer and texture memory (16-MB on GeForce2 MX 200)
	Memory speed	166 MHz
	Data path	256-bit
	Controller clock speed	GeForce2 MX 200—175 MHz GeForce2 MX 400—200 MHz GeForce2 32MB MX 400 w/ TV-Out—175 MHz (consumer models only) GeForce2 64MB MX 400 w/ TV-Out—175 MHz (consumer models only)
	Maximum vertical refresh rate	85-Hz
	Maximum pixel clock	350-MHz
	Graphics API support	DirectX 7, DirectX 8
	Operating systems support	Microsoft® Windows® 2000, Microsoft Windows NT 4.0, and Microsoft Windows 98
	Buffer	96-bit (per pixel)
	Image planes	24-bit double-buffered
	Z-buffer	32-bit (24-bit with stencil planes)
	Overlay	Supported
	Stencil planes	8-bit (maximum)
	Alpha planes	8-bit
External interface	Analog video output port; the video port (female, 15-pin, D-SUB connector) provides connection to an analog display	

Resolutions Supported

Resolution	Refresh Rate (Hz)	Max Refresh Rate (Hz)	Max Refresh Rate (Hz)
	8-bit Color	16-bit Color	32-bit Color
1920 x 1440	85, 75	85, 75	85, 75
1920 x 1200	85	85	85
1920 x 1080	85	85	85
1600 x 1200	85	85	85
1280 x 1024	85	85	85
1152 x 864	85	85	85
1024 x 768	85	85	85
800 x 600	85	85	85
640 x 480	85	85	85

Technical Specifications – Graphics

Matrox Millennium G450 Dual Head AGP and PCI Graphics Controllers	Form Factor	ATX	
	Bus type	AGP 1X, 2X, 4X: PCI Rev 2.2 bus specification	
	Standard memory	AGP: 32 MB / PCI: 16 MB	
	DAC speed	360 MHz (secondary DAC: 200 MHz)	
	Data path	64-bit DDR External/256-bit Internal	
	Internal bus width	256-bit DualBus	
	Memory interface	64-bit DDR Memory	
	Frame buffer	AGP: 32 MB / PCI: 16 MB	
	Two integrated RAMDACs	Yes	
	Engine acceleration	3 ROP bitBLT, line draw, text, color expansion, basic video color conversion and scaling, triangle setup engine	
	Other	PCI bus mastering, texture mapping support, flat and Gouraud shading, direct 3-D support, Anisotropic Filter, perspective texture, specular highlighting, wireframe, dithering, full scene anti-aliasing, vertex fog, dual texture mapping, Plug-and-Play AGP 2X and AGP 4X, 0.18-micron technology (lower heat/power consumption), high-quality DVD playback with full access to Microsoft Windows, Color Space Conversion, Quick Draw support, DCI and DirectX video playback, MS DirectDraw support	
	3D Features	Single cycle multi-texturing	Yes
		Environment-mapped bump mapping	Yes
	Internal rendering	32-bit	
	Source textures	Up to 32-bit	
	Maximum texture size	2048 X 2048	
	Hardware non-power-of- 2 textures	Yes	
	32-bit color output	Yes	
	32-bit independent Z-buffer	Yes	
	Stencil buffering	Yes	
	AGP texturing	Yes	
	Trilinear filtering	Yes	
	DirectX support	Yes	
	OpenGL support	Yes	
DualHead Display Features	Multi-Display Mode, DVD Max Mode, DualHead Zoom Mode, DualHead Clone Mode, Single Chip Multi-Monitor support		
Supported Modes	This list assumes setup to be DualHead multi-display running Microsoft Windows 98. If using Microsoft Windows NT 4.0 or Microsoft Windows 2000 while in multi-display, primary CRT is limited to modes supported by 2nd CRT.		
Primary CRT Color Depths	Color Depths (bpp)	Refresh Rates	
640 x 480	8, 16, 24, 32	60 Hz, 72 Hz, 75 Hz, 85 Hz	
800 x 600	8, 16, 24, 32	60 Hz, 72 Hz, 75 Hz, 85 Hz	
1024 x 768	8, 16, 24, 32	60 Hz, 70 Hz, 75 Hz, 85 Hz	
1152 x 864	8, 16, 24, 32	75 Hz	
1280 x 960	8, 16, 24, 32	60 Hz, 75 Hz, 85 Hz	
1280 x 1024	8, 16, 24, 32	60 Hz, 75 Hz, 85 Hz	
1600 x 1200	8, 16, 24, 32	60 Hz, 65 Hz, 70 Hz, 75 Hz (85 Hz available in single monitor configuration only)	
1800 x 1440	8, 16, 24	60 Hz, 72 Hz, 75 Hz, 85 Hz	
1856 x 1392	8, 16, 24	60 Hz, 75 Hz, 85 Hz	
1920 x 1440	8, 16, 24	60 Hz, 75 Hz, 85 Hz	
2048 x 768	8, 16	60 Hz, 75 Hz	
Secondary CRT Color Depths	Color Depths (bpp)	Refresh Rates	
640 x 480	16, 32	60 Hz, 72 Hz, 75 Hz, 85 Hz	
800 x 600	16, 32	60 Hz, 72 Hz, 75 Hz, 85 Hz	
1024 x 768	16, 32	60 Hz, 70 Hz, 75 Hz, 85 Hz	
1152 x 864	16, 32	75 Hz	
1280 x 960	16, 32	60 Hz, 75 Hz, 85 Hz	
1280 x 1024	16, 32	60 Hz, 75 Hz, 85 Hz	
1600 x 1200	16, 32	60 Hz, 65 Hz, 70 Hz, 75 Hz, 85 Hz	

Technical Specifications – Graphics

Matrox G550 Dual DVI 32-MB AGP Graphics Controller	Form factor	Low profile (LP) board with ATX bracket attached (kit also includes a Small Form Factor (SFF) bracket)	
	Bus type	AGP 4X, AGP 2X, and AGP 1X	
	Standard memory	32-MB, high-speed DDR	
	DAC speed	360-MHz RAMDAC; secondary 230-MHz RAMDAC	
	Data path	64-bit DDR external bus to frame buffer memory/256-bit internal	
	Internal bus width	256-bit DualBus	
	Memory interface	64-bit DDR memory	
	Frame buffer	32 MB	
	Operating systems supported	Microsoft Windows 2000, Microsoft Windows 98, Microsoft Windows NT 4.0	
	Two integrated RAMDACs	Yes	
	3-D engine acceleration	<p>Matrox HeadCasting* engine, two dual-textured 3-D pixels/clock for fast 3-D game play, dual pixel pipelines with dual texturing units per pipeline, floating point 3-D setup engine with dynamically re-allocatable resources; Microsoft DirectX Environment-Mapped Bump Mapping; Vibrant Color Quality rendering; bilinear, 8-sample-per-pixel trilinear, and anisotropic filtering; Microsoft DirectX and OpenGL® alpha blending modes; Z-buffer support</p> <p><i>*Note: System recommendations for HeadCasting and DVD—450-MHz or higher computer; 128 MB RAM; 56-K or higher modem with minimum 40-K connection, microphone, and DVD-ROM; Internet Explorer 5.5 or higher, Microsoft PowerPoint 2000 or Microsoft PowerPoint XP (for Matrox Virtual Presenter)</i></p>	
	3-D features	Single cycle multi-texturing	Yes
		Environment-mapped bump mapping	Yes
	Internal rendering	32-bit	
	Source textures	Up to 32-bit	
	Maximum texture size	2048 x 2048	
	32-bit color output	Yes	
	32-bit independent Z-buffer	Yes	
	Stencil buffering	Yes	
	AGP texturing	Yes	
	Trilinear filtering	Yes	
	Microsoft DirectX support	Yes	
	OpenGL support	Yes, through Matrox	
DualHead 3-D display features	HeadCasting, Microsoft DirectX compliant, dual texturing units per pixel pipeline, two pixel pipelines, single-cycle multi-texturing, environment-mapped bump mapping, 32-bit internal rendering precision, up to 32-bit source textures, 32-bit color output, bilinear, trilinear and anisotropic 3-D filtering, 32-bit independent Z-buffer, OpenGL support		
Other 3-D features	Alpha blending, fogging, specular highlighting, environment mapping, stencil buffering, triple buffering, AGP texturing		
Other	Texture mapping support; true color RGB, flat, and Gouraud shading; Direct3-D support; anisotropic filter; perspective-correct texture mapping; specular highlighting (any color); hardware dithering (including dithering of LUT textures); sort-dependent antialiasing; vertex and table fogging; dual texture mapping; Plug-and-Play; 0.18-micron technology (lower heat/power consumption); high-quality DVD playback with DVDMax; color space conversion; QuickDraw supported DCI and Microsoft DirectX and OpenGL blend modes; Microsoft DirectDraw support; support for picture-in-picture and multiple video windows; Unique Motion Video Rendering support		
Kit contents	Matrox G550 graphics card with standard ATX bracket, DVI digital cable, VGA analog cable, Small Form Factor bracket, CD containing software drivers and documentation		
Optional software bundles (not included)	Matrox Virtual Presenter for Microsoft PowerPoint; Digimask™ System, HeadFone™ by LipSinc; The Matrox Software DVD Player; eDualHead browser enhancements (PageWrap, PageLog, and PageJump); Matrox PowerDesk		

Technical Specifications – Graphics

Matrox G550 Dual DVI 32-MB AGP Graphics Controller (continued)

DualHead configurations	Digital flat panel + digital flat panel , VGA monitor/analog flat panel + VGA monitor/analog flat panel
DualHead 2-D display features	DualHead Multi-Display support; DualHead Browser Enhancement Suite, DualHead DVDMax, DualHead Zoom, DualHead Clone, DVDMax, DualHead MultiDesk, DualHead TV-out, DualHead Snapshot, Dual DVI support, True Multi-Display support with Microsoft Windows 2000
DualHead display technology chip specifications	Multiple independent displays with a single AGP card: digital flat panel/digital flat panel; analog flat panel (RGB monitor)/analog flat panel (RGB monitor)

Resolutions Supported	Maximum Colors Supported	Refresh Rates
640 x 480	16 million	200 Hz vertical
800 x 600	16 million	200 Hz vertical
1024 x 768	16 million	160 Hz vertical
1152 x 864	16 million	150 Hz vertical
1280 x 1024	16 million	120 Hz vertical
1600 x 1200	16 million	100 Hz vertical
1800 x 1440	16 million	90 Hz vertical
1920 x 1200	16 million	100 Hz vertical
2048 x 1536	16 million	85 Hz vertical
Secondary Resolutions Supported	Maximum Color Depths (bpp)	Refresh Rates
640 x 480	16 million	200 Hz vertical
800 x 600	16 million	200 Hz vertical
1024 x 768	16 million	160 Hz vertical
1152 x 864	16 million	150 Hz vertical
1280 x 1024	16 million	120 Hz vertical
1600 x 1200	16 million	85 Hz vertical
1920 x 1200	16 million	65 Hz vertical

Technical Specifications – Hard Drives

7200 rpm SMART III Ultra ATA/100 Hard Drives	60 GB	Capacity	60,000 MB	
		Rotational Speed	7200 rpm	
		Interface	Ultra ATA/100	
		Height	1 in/25.4 mm	
		Width	3.5 in/88.9 mm	
		Transfer Rate Synchronous (Maximum)	100 MB/s	
		Seek Time (typical reads, including settling)	Single Track	1.2 ms (2.7 ms quiet seek)
			Average	8 ms (10.1 ms quiet seek)
			Full-Stroke	18 ms (21.1 ms quiet seek)
		Physical Configuration	Logical Blocks	78,165,360
	Operating Temperature	41° to 131°F/5° to 55°C		

Note: 60-GB capacity points include Quiet Idle technology, which reduces acoustic levels approximately 5 decibels.

40 GB	Capacity	40,000 MB	
	Rotational Speed	7200 rpm	
	Interface	Ultra ATA/100	
	Height	1 in/25.4 mm	
	Width	3.5 in/88.9 mm	
	Transfer Rate Synchronous (Maximum)	100 MB/s	
	Seek Time (typical reads, including settling)	Single Track	1.2 ms (2.7 ms quiet seek)
		Average	8 ms (10.1 ms quiet seek)
		Full-Stroke	18 ms (21.1 ms quiet seek)
	Physical Configuration	Logical Blocks	78,165,360
Operating Temperature	41° to 131°F/5° to 55°C		

Note: 40-GB capacity points include Quiet Idle technology, which reduces acoustic levels approximately 5 decibels.

20 GB	Capacity	20,000 MB	
	Rotational Speed	7200 rpm	
	Interface	Ultra ATA/100	
	Height	1 in/25.4 mm	
	Width	3.5 in/88.9 mm	
	Transfer Rate Synchronous (Maximum)	100 MB/s	
	Seek Time (typical reads, including settling)	Single Track	1.2 ms (2.7 ms quiet seek)
		Average	8 ms (10.1 ms quiet seek)
		Full-Stroke	18 ms (21.1 ms quiet seek)
	Physical Configuration	Logical Blocks	39,102,336
Operating Temperature	41° to 131°F/5° to 55°C		

Note: 20-GB capacity points include Quiet Idle technology, which reduces acoustic levels approximately 5 decibels.

Technical Specifications – Hard Drives

5400 rpm SMART III Ultra ATA/100 Hard Drives	40 GB	Capacity	40,000 MB	
		Rotational Speed	5400 rpm	
		Interface	Ultra ATA/100	
		Transfer Rate Synchronous (Maximum)	66 MB/s	
		Height	1 in/25.4 mm	
		Width	3.5 in/88.9 mm	
		Seek Time (typical reads, including settling)	Single Track	1.5 ms (2.9 ms quiet seek)
			Average	10.5 ms (12.4 ms quiet seek)
			Full-Stroke	23 ms (23 ms quiet seek)
		Physical Configuration	Logical Blocks	39,102,336
	Operating Temperature	41° to 131°F/5° to 55°C		

Note: 40-GB capacity points include Quiet Idle technology, which reduces acoustic levels approximately 5 decibels.

	20 GB	Capacity	20,000 MB	
		Rotational Speed	5400 rpm	
		Interface	Ultra ATA/100	
		Transfer Rate Synchronous (Maximum)	66 MB/s	
		Height	1 in/25.4 mm	
		Width	3.5 in/88.9 mm	
		Seek Time (typical reads, including settling)	Single Track	1.5 ms (2.9 ms quiet seek)
			Average	10.5 ms (12.4 ms quiet seek)
			Full-Stroke	23 ms (23 ms quiet seek)
		Physical Configuration	Logical Blocks	39,102,336
	Operating Temperature	41° to 131°F/5° to 55°C		

Note: 20-GB capacity points include Quiet Idle technology, which reduces acoustic levels approximately 5 decibels.

Technical Specifications – Input/Output Devices

Compaq Easy Access Keyboard	Dimensions (HxWxD)	18.3 x 6.3 x 1.4 in/465 x 160 x 36 mm		
	Weight	Approximately 2 lbs/0.9 kg		
Electrical	Operating Voltage	+5VDC ± 5%		
	Power Consumption	50 mA maximum (with 3 LEDs on)		
	System Interface	PS/2 mini-din connector		
	ESD	CE level 4, 15 kV air discharge		
	EMI-RFI	Conforms to FCC rules for a Class B computing device		
	PC98	Functionally compliant		
	Mechanical	Languages	30+ available	
		Keycaps	Low-profile design	
		Switch Actuation	55 g nominal peak force with tactile feedback	
		Switch Life	20 million keystrokes (using Hasco modified tester)	
Switch Type		Contamination resistant membrane		
Key Leveling Mechanism		For all double wide and greater length keys		
Cable Length		6 ft/1.8 m		
PC98-99		Mechanically compliant		
Acoustics		50 dBA maximum sound pressure level		
Environmental		Operating Temperature	50° to 122° F/10° to 50° C	
	Non-operating Temperature	–22° to 140° F/–30° to 60° C		
	Operating Humidity	10% to 90% (non condensing at ambient)		
	Non-operating Humidity	20% to 80% (non condensing at ambient)		
	Operating Shock	40 g, 6 surfaces		
	Non-operating Shock	80 g, 6 surfaces		
	Operating Vibration	2 g peak acceleration		
	Non-operating Vibration	4 g peak acceleration		

Technical Specifications – Input/Output Devices

Compaq 2-Button Scroll Mouse	Scroll Wheel	8 mm		
	Maximum Rotation Speed	30 mm/s		
	Switch Type	Light force micro-switch		
	Switch Life	1 million operations		
	Mechanical Life	Minimum 200,000 revolutions		
	Environmental	Operating Temperature	50° to 122° F/10° to 50° C	
		Non-operating Temperature	–22° to 140° F/–30° to 60° C	
		Operating Humidity	10% to 90% (non condensing at ambient)	
		Non-operating Humidity	20% to 80% (non condensing at ambient)	
		Operating Shock	40 g, 6 surfaces	
		Non-operating Shock	80 g, 6 surfaces	
		Operating Vibration	2 g peak acceleration	
		Non-operating Vibration	4 g peak acceleration	
		Electrical	Operating Voltage	+5VDC ± 10%
			Power Consumption	15mA
	System Consumption		PS/2 mini-din connector	
	ESD		CE level 4, 15 kV air discharge	
	EMI-RFI		Conforms to FCC rules for a Class B computing device	
	PC98		Functionally compliant	
	Mechanical	Resolution	400 ± 20% DPI	
		Tracking Speed	10 in/s maximum	
		Acceleration	100 in/s	
		Switch Actuation	85 g nominal peak force	
Switch Life		1,000,000 operations (using Hasco modified tester)		
Cable Length		2 m		
PC98-99		Mechanically compliant		
Regulatory Approvals	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BCIQ, C-Tick			

Technical Specifications – Optical Storage

48X CD-ROM Drive	Interface	ATAPI IDE		
	Data buffer	16.6 Mbps		
	Data transfer rate	Sustained—150 Kbps minimum (audio)	Variable (CD)—3,000 to 7,200 Kbps	
	Disk rotation technology	CAV (Constant Angular Velocity)		
	Access time (ms)	Random: <100 ms	Full-stroke seek: <150 ms	
	Average access time	< 80 ms		
	Cache buffer (standard/maximum)	128 KB		
	Disk formats read	Multi-session Photo CD, multi-read CD-ROM, CD text, audio CD, CD-I, CD-RW, CD-R, CD-Extra, CD-ROM XA		
	Disk formats written	None		
	Disk capacity (CD)	650 MB		
	Block size	Mode 1—2,048 bytes Mode 2—2,340 / 2,336 bytes CD-DA—2,352 bytes CD-XA—2,328 bytes		
	Diameter	12 cm; 8 cm		
	Thickness	1.2 mm		
	Track pitch	1.6 µm		
	Audio output level	Line-out—0.7 V @ 47 Kohm	Headphone—0.6 V @ 32 ohm	
	Startup time	<7 seconds (typical); < 30 seconds with multi-session		
	Operating conditions	Temperature	41° to 113° F (5° to 45° C)	
		Relative humidity	10% to 80%	
	Dimensions (HxWxD, maximum)	1.7 x 5.9 x 8.2 inches (4.3 x 15.0 x 20.8 cm)		
	Weight	2.6 pounds (1200 g)		
	Operating systems supported	Microsoft Windows 98/98SE, Microsoft Windows 2000, and Microsoft Windows NT 4.0 SP4 or later		
	MPEG playback graphics solution support	None		

Technical Specifications – Optical Storage

16X/10X/40X CD-RW Drive	Interface	ATAPI IDE		
	Media formats written	CD-R and CD-RW		
	Media capacity	650 MB		
	Write methods	Disc-at-once, track-at-once, session-at-once, fixed packet, and variable packet		
	Recording/playing time	74 minutes		
	Data transfer rates	Sustained	CD-R write—2,400 Kbps (16X) CD-RW write (1-4X media) —1,500 Kbps (4X) CD-RW write (4-10X media) —1,500 Kbps (10X) CD-RW read—1,500 Kbps (10X) Digital audio extraction (minimum) —1,500 Kbps (10X)	
		Variable	CD-ROM, CD-R read—1,500 to 6,000 Kbps (10X to 40X)	
	Data transfer modes	ATA PIO mode 4—16.7 Mbps		
		ATA multi-word DMA mode 2—16.7 Mbps		
		ATA UltraDMA mode 0—16.7 Mbps (mandatory and default setting)		
		ATA UltraDMA mode 1—24 Mbps (optional); mode 2—33 Mbps (optional)		
	Media formats read	CD-audio, CD-ROM (modes 1 and 2), CD-ROM XA (mode 2, forms 1 and 2), single- or multi-session photo CD, CD-I, video CD, CD-text		
	Access times	Random	<120 ms typical	
		Full stroke	<200 ms typical	
	Rotational speed	17X—40X CAV	8,350 RPM, constant	
		16X CLV	3,424—7,952 RPM	
		10X CLV	2,140—4,970 RPM	
		8X CLV	1,712—3,976 RPM	
		4X CLV	856—1,988 RPM	
	Start-up time	Single	<7 seconds typical	
		Multi-session	<30 seconds typical	
	Stop time	<4 seconds		
	Block size	Mode 1—2,048 / 2,352 bytes		
Mode 2, Form 1—2,048 / 2,328 / 2,336 / 2,340 / 2,352 bytes				
Mode 2, Form 2—2,328 / 2,336 / 2,340 / 2,352 bytes				
CD-DA—2,352 / 2,368 bytes				
Disc diameter	120 mm or 80 mm			
Track pitch	1.6 µm			
Disc loading mechanism	Half-height, tray load			
Operating conditions	Temperature	41° to 113° F (5° to 45° C) operating; -4° to 140° F		
	Humidity	10% to 80%		
Mounting orientation	Horizontal or vertical			
Dimensions	Fits in a standard 5.25-inch drive bay			
Weight	2.6 pounds (1.2 kg)			
Approvals/environmental	UL 94 and 1950, CSA, CE, FDA, FCC			
Operating systems supported	Microsoft Windows 98, Microsoft Windows NT 4.0, Microsoft Windows 2000			

Technical Specifications – Optical Storage

16X/40X DVD-ROM Drive with RAM Read	Bus	Ultra DMA 33	
	Data transfer rate (1 KB = 1024 bytes)	Sustained	DVD = 8.1 Mbps to 21.6 Mbps CD-ROM = 2.55 Kbps to 6.00 Kbps
	Disc rotation technology	DVD—CAV (Constant Angular Velocity) CD—CAV	
	Access time (ms)	Random Full stroke seek	DVD = <100 ms; CD-ROM = < 80 ms DVD = <240 ms; CD-ROM = <160 ms
	Cache buffer standard / max	512 KB	
	ATAPI interface	ATAPI	
	Disc formats read	DVD-RAM, DVD-ROM, DVD-video, DVD-R, DVD-RW, DVD-RAM, Photo CD/multi-session, CD-ROM, CD text, audio CD, CD-I, CD-RW, CD-R, CD-DA, video CD, CD Extra, CD-ROM XA, MPEG, MPC level	
	Disc formats written	None	
	Disc	Capacity	CD—650 MB DVD—4.7 GB
		Block size	Mode 0—2,352 (bytes) Mode 1—2,352 / 2,340 / 2,336 / 2,048 (bytes) Mode 2—2,352 / 2,340 / 2,336 / 2,048 (bytes) DVD—2,048 (bytes)
		Diameter	12 cm, 8 cm
		Thickness	1.2 mm (CD-ROM) 1.2 mm (DVD)
		Track pitch	1.6 μm (CD-ROM) 0.74 μm (DVD)
	Audio output level	Line out Headphones	0.7± 0.1 Vrms 0.45 ± 0.2 Vrms
	Operating conditions	Temperature Humidity	41° to 113° F (5° to 45° C) 5% to 85% relative humidity
	Dimensions (HxWxD)	1.67 x 5.83 x 8.18 inches (4.23 x 14.81 x 20.75 cm)	
	Weight	2.22 pounds (1 kg)	
	Agency approvals / environmental	UL, CSA, TUV, FDA, FCC, CE, EMI	
	OS support	Microsoft Windows 98/98SE, Microsoft Windows Me, Microsoft Windows 2000, and Microsoft Windows NT 4.0 <i>Note: MPEG video playback is not supported on Microsoft Windows NT.</i>	
	MPEG video playback compatibility	Refer to the platform for support	
	RPC2 (Regional Protection Control)	Yes	
	Minimum CPU supported	Intel® Pentium® II 400 MHz or Intel Celeron™ 466 MHz	
	Mounting orientation	Operates in horizontal or vertical position	

Technical Specifications – Optical Storage

8X Combo CD-RW/DVD-ROM (5.25-inch, half-height, tray-load)	Orientation	Either horizontal or vertical	
	Interface type	ATAPI	
	Dimensions—external, excluding bezel (W x H x D)	5.8 x 1.7 x 7.7 inches (146.5 x 42.1 x 196 mm)	
	Disc diameter	5 inches, 3 inches (12 cm, 8 cm)	
	Disc thickness	0.05 inch (1.2 mm)	
	Track pitch	1.6 μ m (CD), 0.74 μ m (DVD)	
	Disc center hole diameter	0.6 inch (15 mm)	
	Reference scanning velocity	1.2 m/s (CD); 3.5 m/s (DVD SL); 3.8 m/s (DVD DL)	
	Read only disc parameters	Formats and modes supported	CD-ROM—Mode 1; CD-ROM XA—Mode 2 (forms 1 and 2); CD digital audio; CD Extra; CD-I—Mode 2 (forms 1 and 2) and CD-I-Ready; Photo CD (single and multi-session); video CD; DVD (single- and double-layer); DVD-R (3.95-GB); DVD-R (4.7-GB)
		Capacity	540 MB (CD— mode 1, 12 cm); 650 MB (CD— mode 2, 12 cm); 700MB (CD-ROM—80 minutes); 180 MB (CD-ROM—8 cm); 4.7 GB (DVD-5); 8.5 GB (DVD-9); 9.4 GB (DVD-10)
Block size		Mode 1—2,048 and 2,352 bytes; mode 2, form 1—2,048, 2,328, 2,336, 2,340 and 2,352 bytes; mode 2, form 2—2,328, 2,336, 2,340 and 2,352 bytes; CD-DA—2,352 and 2,368 bytes; DVD—2,048 bytes	
Writeable disc parameters	Disc type	CD-R and CD-RW	
	Write methods	Disc at Once, Track at Once, Session at Once, Variable Packet, Fixed Packet	
	Format and modes supported	CD-ROM (mode 1); CD-ROM XA (mode 2, forms 1 and 2); CD digital audio, CD-I (mode 2, forms 1 and 2); video CD	
	Capacity	540 MB (mode 1, 12 cm); 650 MB (mode 2, 12 cm); 700 MB (CD-ROM, 80 minutes); 180 MB (CD-ROM, 8 cm)	
	Block size	Mode 1 Disc type—2,048 bytes; mode 2, form 1—2,048 and 2,352 bytes; mode 2, form 2—2,352 bytes; CD-DA—2,352 bytes	
Access times (typical reads, including settling)	Random	< 130 ms (typical)	
	Full stroke	< 240 ms (typical)	

Technical Specifications – Optical Storage

8X Combo CD-RW/DVD-ROM (continued)	Data transfer rates	Sustained—1,200 KB/s (8X) CD-R write
		Sustained— 600 KB/s (4X) CD-RW
		Sustained—1,200 KB/s (8X) Digital audio extraction (minimum) CAV)
		Variable—1,500 to 4,800 KB/s (10X to 32X) CD-ROM, CD-R read, CD-RW read
		Variable—2,705 to 10,820 KB/s (2X to 8X) DVD read
Data transfer modes		ATA PIO mode 4 (16.7 Mbps); ATA Multi-word DMA mode 2 (16.7 Mbps); ATA UltraDMA mode 0 (16.7-Mbps—default setting if UDMA supported); ATA UltraDMA mode 1 (24 Mbps, optional), mode 2 (33 Mbps, optional)
	Cache buffer	2 MB (minimum)
	Startup time (single)	< 7 seconds (typical)
	Startup time (multi-session)	< 30 seconds (typical)
	Stop time	< 4 seconds
Power		Source Four-pin, DC power receptacle
	DC power requirement	5 VDC \pm 5%—100 mV ripple p-p 12 VDC \pm 5%—200 mV ripple p-p
	DC current	5 VDC (< 1 A typical, < 1.5 A maximum) 12 VDC (< 1 A typical, < 1.5 A maximum)
	Total drive power (standby mode)	< 2.5 watt
Audio output level		0.7 Vrms (typical)
Configuration jumper block		Master, slave, and cable select modes
Data interface connector		40-pin, shrouded and keyed, flat ribbon
Environmental (all conditions non-condensing)		Temperature (operating) 41° to 113°F (5° to 45°C)
	Relative humidity (operating)	10% to 85%
	Maximum wet bulb temperature (operating)	86°F (30°C)
Certifications, requirements		MPC-3 compliant, multi-read requirements, PC'99 certified, ACA AS/NZS 3548, ANSI C63.4-1992, ATAPI Spec SFF-8020, ATA Spec X3T9.2791D, Australian Communications Authority, CB Bulletin No. 92A1, CFR 21, Part 1040, CSA C22.2 No. 950, C.I.S.P.R. Pub 22, ECMA 74, EEC/93/68, EEC/73/23, EEC/99/5, EMKO-TSE (74SEC) 207/94
Operating systems supported		Microsoft Windows 98, Microsoft Windows NT 4.0, Microsoft Windows 2000 Note: MPEG video playback is not supported on Microsoft Windows NT.
Option kit contents		8X Combo CD-RW/DVD-ROM Drive, Roxio™ EasyCD Creator, InterVideo™ WinDvd™ 2000, Dantz Retrospect Express for RW, CDR media, CD-RW media, audio cable, and installation guide

Technical Specifications – Removable Storage

1.44-MB Diskette Drive	Diskette Size	3.5 in.		
	LED Indicators (front panel)	Green		
	Read/Write Capacity per diskette (high/low density)	1.44 MB/720 KB		
	Drive Supported	One		
	Drive Height	One-third		
	Drive Rotation	300 rpm		
	Transfer Rate (high/low)	500/250 Kb/s		
	Bytes/Sector	512		
	Sectors/Track (high/low)	18/9		
	Tracks/Side (high/low)	80/80		
	Access Times	Track-to-Track (high/low)	3/6 ms	
		Average (high/low)	169/94 ms	
		Settling Time	15 ms	
Latency Average		100 ms		

Zip 250 Drive	Interface	ATAPI IDE		
	Media format supported	Zip disk		
	Media capacity	250 MB		
	Access time	29 ms (average)		
	Drive rotational speed	2,941 rpm		
	Size	Fits into a 5.25-inch bay (with bracket)		
	Data transfer rate	Maximum sustained	2.4 Mbps	
			1.4 Mbps	
			1.4 Mbps (100 MB), 2.4 MB/s (250 MB)	
			0.3 Mbps (100 MB), 2.4 MB/s (250 MB)	
Operating conditions	Temperature	50° to 125° F (10° to 51.5° C)		
	Humidity	20% to 80%		
Compatible operating system	Microsoft Windows 98/98SE, Microsoft Windows 2000, and Microsoft Windows NT 4.0 SP4 or later			

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